Claims

1. Clutch system for a transmission with one clutch (1) which comprises one disc carrier (3) and one servo mechanism (10) situated within said disc carrier (3) and having dynamic pressure balance for actuating said clutch (1), the same as one planet carrier of one planetary gear set (26), the spider plate (27) of which abuts in axial direction on a pressure balance space (15) of said dynamic pressure balance of said servo mechanism (10), characterized in that said spider plate (27) is non-torsionally connected with said disc carrier (3) and via a locking element (31) is axially fixed on said disc carrier (3) in a manner such that said servo mechanism (10) is prestressed against said disc carrier (3) by the axial fixing of said spider plate (27).

2. Clutch system according to claim 1, characterized in that one recoil spring (13) of said servo mechanism (10) which acts upon one piston (11) of said servo mechanism (10) supports itself directly on said spider plate (27).

3. Clutch system according to claim 1, characterized in that one recoil spring (13) of said servo mechanism (10) which acts upon one piston (11) of said servo mechanism (10) supports itself directly on a baffle plate of said pressure balance space (15) which is stationary relative to said spider plate (27), said baffle plate supporting itself directly on said spider plate (27).

4. Clutch system according to claim 1, 2 or 3, characterized in that said discs (2) of said clutch (1), disc carrier (3), servo mechanism (10) and pressure balance space (15), together with said pre-completed planet carrier of said planetary gear set (266), form an assemblable unit which can be installed as one hole in the transmission, said pre-completed planet carrier having said spider plate (27), planet shafts (33) inserted in said spider plate (27) and planetary gears (32) supported on said planet shafts (33).

5. Clutch system according to any one of claims 1 to 4, characterized in that upon the side of said spider plate (27) facing said pressure balance space (15), abutting axially directly on said spider plate (27), one molded spacer disc (16) is situated which spatially separates said pressure balance space (15)

from a lubricant chamber (25) of a planetary gear lubrication on the side of the spider plate and to form said lubricant chamber (25) abuts at least extensively oil tight on a radius above planet shafts (33) opposite said spider plate (27), that said molded spacer disc (16) has distributed on its periphery axially stamped corrugations of radial direction whose grooves (21, 20) formed by the axial stamping are connected either with said pressure balance space (15) or with said lubricant chamber (25) and that a common lubricant supply (A) located in the area of the inner diameter of said molded spacer disc (16) is provided for the dynamic pressure balance of said clutch (12) and for the planetary gear lubrication of said planetary gear set (26), lubricant for planetary gear lubrication being passed from said lubricant chamber (25) to said planetary gears via holes of said planet shafts (33) inserted in said spider plate (27).

6. Clutch system according to claim 6, characterized in that said pressure balance space (15) is formed by the molded spacer disc (16) as axially stationary baffle plate and by a cup-shaped section (12) of the axially movable piston (11) of said servo mechanism (10).

7. Clutch system according to claim 5, characterized in that said pressure balance space (15) is formed by an axially stationary wall consisting of said molded spacer disc (16) and one cylindrical section (28) of said spider plate (27) and by a cup-shaped section (12) of said axially movable piston 911) of said servo mechanism (10).

8. Clutch system according to claim 5, 6 or 7, characterized in that said molded spacer disc (16) has one overflow edge (22) acting between pressure balance space (15) and lubricant chamber (25) an dis positioned relative to said common lubricant supply (A) so that lubricant flowing on the inner diameter of said molded spacer disc (16) first fills at least to a great extent said pressure balance space (15) of said clutch (1) and only when said pressure balance space (15) is filled is passed via said overflow edge (22) of said molded spacer disc (16) into said lubricant chamber (25) of said planetary gear lubrication.

9. Clutch system according to claim 5, 6 or 7, characterized in that said molded spacer disc (16) is disposed relative to said common lubricant supply (A)

so that the lubricant flowing on the inner diameter of said molded spacer disc (6) is passed partly to said pressure balance space (15) of said clutch (1) and partly to said lubricant chamber (25) of said planetary gear lubrication.

10. Clutch system according to any one of claims 1 to 4, characterized in that said pressure balance space (15) is formed by said spider plate (27) as axially stationary wall and by a cup-shaped section (12) of said axially movable piston (11) of said servo mechanism (10).

11. Clutch system according to claim 10, characterized in that a common lubricant supply (A) is provided for the dynamic pressure balance of said clutch (1) and for the planetary gear lubrication of said planetary gear set (26), the lubricant for said planetary gear lubrication being passed directly from said pressure balance space (15) to said planetary gears (32) via holes of the respective planet shafts (33).

12. Clutch system according to any one of claims 1 to 11, characterized in that for axial fixing of said spider plate (27) on said disc carrier (3), said locking element (31) is radially secured by a embossing (30) of said spider plate (27) which extends axially in direction of said locking element (31) on a diameter directly above said locking element (31)

13. Clutch system according to claim 12 and any one of claims 5 to 9, characterized in that said molded spacer disc (16) can be elastically deformable so that said spider plate (27) be acially movable for assembly of said locking element (31) on said disc carrier (3), said spider plate (27) being pressed back toward said licking element (31) by said recoil spring (13) of said servo mechanism (10) after assembly of said locking element (31).

14. Clutch system according to any one of claims 5 to 13, characterized in that said planet shafts (33) have each one central hole (34) in which one diaphragm (35) is inserted.

15. Clutch system according to any one of claims 5 to 14, characterized in that said planet shafts (33) have each one central hole (34) designed as stepped hole.

16. Clutch system according to any one of claims 5 to 15, characterized in that said disc carrier (3) has at least one lubrication hole (6) situated in a hub (5) of said disc carrier (3) for the common lubricant supply (A) of the dynamic pressure balance of said clutch (1) and of said planetary gear lubrication of said planetary gear set.

17. Clutch system according to any one of claims 1 to 16, characterized in that said disc carrier (3) is designed as outer disc carrier.

18. Clutch system according to claim 17, characterized in that said servo mechanism (10), seen from a pressure space (14) of said clutch (1), acts in direction of said planetary gear set (26) during an actuation of said clutch (1).

19. Clutch system according to any one of claims 1 to 16, characterized in that said disc carrier is designed as inner disc carrier.

20. Clutch system according to claim 19, characterized in that said servo mechanism during an actuation of said clutch, seen from a pressure space of said clutch, acts in direction opposite to said planetary gear set.